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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/520,278

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Masao Tanaka

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09/13/2006

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EXAMINER

LIVEDALEN, BRIAN J

ART UNIT

PAPER NUMBER

2878

DATE MAILED: 09/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/520,278	TANAKA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Brian J. Livedalen	2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____  | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

This action is in response to amendment filed 6/30/2006. Claims 1- 9 are pending.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirasawa et al. (2002/0020906).

In regard to claim 1, Hirasawa discloses (fig. 4c) a leadframe (10c) having an element mount frame (12b and 13b, right side), a fitting frame (12b, left side) that is laid beside the element mount frame with a gap left in between, and a shielding frame (13a) that is tied via a tying portion (14, left side) to the fitting frame and that can be brought into such a state as to cover the element mount frame (page 2, paragraphs 0033 – 0037).

In regard to claim 2, Hirasawa discloses (fig. 4c) wherein tie bars (11a) are provided at both ends of the gap.

In regard to claim 3, Hirasawa discloses (fig. 4c) that the fitting frame is in a portion near the tying portion, shaped symmetrically about the tying portion.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirasawa et al. (2002/0020906).

In regard to claim 5, Hirasawa discloses (fig. 4c) a photodetector module having an element mount frame (12b and 13b, right side), a fitting frame (12b, left side) that is laid beside the element mount frame with a gap left in between, and a shielding frame (13a) that is tied via a tying portion (fig. 5, 14, vertical section) to the fitting frame and that can be brought into such a state as to cover the element mount frame; and molding resin in which the element mount frame and the fitting frame are sealed (fig. 5e, 20) (page 2, paragraphs 0033 – 0037). Hirasawa discloses a light emitting element on the mount frame and the photodetector element on the shielding section but does not disclose a photodetector element on the mount frame and a light emitting element on the shielding section. However, Hirasawa teaches (fig. 1e) placing the photodetector on the mount frame and placing the light emitting element on the shield (page 1, paragraph 0021). It would have been obvious to one of ordinary skill in the art at the time the invention was made to place the photodetector on the mount frame in order to more effectively shield the photodetector.

In regard to claim 9, Hirasawa discloses (fig. 4c) that the element mount frame and the gap have nearly equal lengths.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirasawa et al. (2002/0020906) as applied to claim 5, and in view of Nishimura (2003/0121437).

In regard to claim 6, Hirasawa discloses a photodetector module as set forth above. Hirasawa fails to disclose the mount frame and the shielding frame are kept at the same potential. However, Nishimura discloses (fig. 8) a photodetector module with a shield and mount frame with equal potentials (page 4, paragraph 0035). It would have been obvious to one of ordinary skill in the art at the time the invention was made to put the two frames at equal potential to shield out the most noise.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirasawa et al. (2002/0020906) as applied to claim 5, and in view of Wyland et al. (5679975).

In regard to claim 7, Hirasawa discloses a photodetector module as set forth above. Hirasawa fails to disclose the mount frame and the shielding frame are kept at different potentials. However, Wyland discloses (fig. 2b) a photodetector module with a shield and mount frame with different potentials (column 2, lines 20-31). It would have been obvious to one of ordinary skill in the art at the time the invention was made to put the two frames different potentials in order to shield out the desired amount of noise.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirasawa et al. (2002/0020906) as applied to claim 5, and in view of Worley et al. (6885016).

In regard to claim 8, Hirasawa discloses a photodetector module as set forth above. Hirasawa fails to disclose a circuit element mounted on the mount frame. However, Worley discloses (fig. 3b) a similar photodetector module with a photodetector (312) on a mount frame as well as an integrated circuit (307) on the mount frame (column 6, lines 20-36). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include an integrated circuit with the photodetector in order to make the system more compact and to eliminate noise by providing the same shielding to the circuit.

### ***Response to Arguments***

Applicant's arguments filed 6/30/2006 have been fully considered but they are not persuasive. Examiner acknowledges that lead frames 10a and 10b are manufactured separately. However, they are welded together to form one lead frame 10c. Furthermore, the lead frames 10a and 10b are not "tied together via a tying portion". Rather, the fitting frame (15) and the shielding frame (13a) are tied together by a tying portion (14, left side). Therefore the rejection is proper.

In regard to rejections made under 35 U.S.C. 103, all rejections include proper motivation why the combination would be desirable. Although the motivation may not be explicit in a given reference, the motivation can be drawn from the structure of the reference itself. Therefore, these rejections are proper.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Livedalen whose telephone number is (571) 272-2715. The examiner can normally be reached on 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (571) 272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2878

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

bjl



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